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TECH CENTER 1600/2900

01645
PATENT

Case Docket No. GENENT.046DV1

Date: March 29, 2002

1645
D#1

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) :	Ingrid W. Caras	I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first class mail in an envelope addressed to: United States Patent and Trademark Office, P.O. Box 2327, Arlington, VA 22202, on
Appl. No. :	10/021,121)
Filed :	December 6, 2001) <u>March 29, 2002</u> (Date)
For :	AL-2 NEUROTROPHIC FACTOR) <u>Ginger R. Dreger</u> , Reg. No. 33,055
Examiner :	Unknown)
Group Art Unit :	1645)

TRANSMITTAL LETTER

United States Patent and Trademark Office
P.O. Box 2327
Arlington, VA 22202

ATTENTION: APPLICATION BRANCH

Dear Sir:

Enclosed for filing in the above-identified application are:

- (X) An Information Disclosure Statement.
- (X) A PTO Form 1449 with 45 references.
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.
- (X) Return prepaid postcard.

Ginger R. Dreger
Registration No. 33,055
Attorney of Record

GENENT.046DV1



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TECH CENTER 1600/2900 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Ingrid W. Caras) Group Art Unit 1645
App. No. : 10/021,121)
Filed : December 6, 2002)
For : AL-2 NEUROTROPHIC)
FACTOR)
Examiner : Unknown)

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INFORMATION DISCLOSURE STATEMENT

United States Patent and Trademark Office
P.O. Box 2327
Arlington, VA 22202

Dear Sir:

Enclosed is form PTO-1449 listing 45 references that are also enclosed. This Information Disclosure Statement is being filed before the receipt of a first Office Action on the merits, and presumably no fee is required in accordance with 37 C.F.R. § 1.97(b)(3). If a first Office Action on the merits was mailed before the mailing date of this Statement, the Commissioner is authorized to charge the fee set forth in 37 C.F.R. § 1.17(p) to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: March 29, 2002

By: Ginger R. Dreger
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SHEET 1 OF 3

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. GENENT.046DV1	APPLICATION NO. 10/021,121	MAY 01 2002
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICANT Caras et al.	TECH CENTER 1600/2900	
(USE SEVERAL SHEETS IF NECESSARY)		FILING DATE December 6, 2001	GROUP Unknown	RECEIVED APR 04 2002
APR 03 2002		TECH CENTER 1600/2900		

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
CJN	1.	WO 95/27060	12.10.95	PCT				
↓	2.	WO 95/28484	10.26.95	PCT				
↓	3.	WO 97/15667	01.05.97	PCT				
CD	4.	WO 97/40153	30.10.97	PCT				

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	
CJN	5	Andres et al., "Expression of two novel eph-related receptor protein tyrosine kinases in mamry gland development and carcinogenensis" <u>Oncogene</u> 9:1461-1467 (1994)
↓	5.	Bartley et al."B61 is a ligand for the ECK receptor protein-tyrosine kinase" <u>Nature</u> 368:558-560 (1994)
↓	6.	Beckman et al., "Molecular characterization of a family of ligands for eph-related tyrosine kinase receptors" <u>EMBO J.</u> 13:3757-3762 (1994)
↓	7.	Bennett et al. , "Molecular cloning of a ligand for the EPH-related receptor protein-tyrosine kinase Htk" <u>Proc. Natl. Acad. Sci. USA</u> 92:1866-1870 (March 1995)
↓	9	Bennett et al., "Cloning and Characterization of HTK, a Novel Transmembrane Tyrosine Kinase of the EPH Subfamily" <u>Journal of Biological Chemistry</u> 269(19):14211-14218 (1994)
↓	10	Berkemeyer et al., Neurotrophin-5: A Novel Neurotrophic Factor That Activates trk and trkB" <u>Neuron</u> 7:857-866 (November 1991)
↓	8.	Bohme et al., "PCR mediated detection of a new human receptor-tyrosine-kinase HEK2" <u>Oncogene</u> 8:2857-2862 (1993)
↓	9.	Bowie et al., "Deciphering the Message in Protein Sequences: Tolerance to Amino Acid Substitutions" <u>Science</u> 247:1306-1310 (1990)
CD	11	Buj-Bello et al., "GDNF Is an Age-Specific Survival Factor for Sensory and Automatic Neurons" <u>Neuron</u> 15:821-828 (1995)

EXAMINER	DATE CONSIDERED
<i>G. Liu</i>	4/12/04

*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

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SHEET 2 OF 3

FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. GENENT.046DV1	TECH CENTER 1600/2900	APPLICATION NO. 10/021,121
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APR 03 2002	RECEIVED	
(USE SEVERAL SHEETS IF NECESSARY)		APPLICANT Caras et al.	APR 04 2002	
		FILING DATE December 6, 2001	GROUP Unknown	TECH CENTER 1600/2900 1647

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
CD	10. Burgess et al., "Possible Dissociation of the Heparin-binding and Mitogenic Activities of Heparin-binding (Acidic Fibroblast) Growth Factor-1 from Its Receptor-binding Activities by Site-directed Mutagenesis of a Single Lysine Residue" <u>The Journal of Cell Biology</u> 111:2129-2138 (1990)
	11. Chan and Watt, "New members of the eph subclass of receptor protein-tyrosine kinases" <u>Oncogene</u> 6:1057-1061 (1991)
	12. Cheng et al., "Complementary Gradients in Expression and Binding of ELF-1 and Mek4 in Development of the Topographic Retinotectal Projection Map" <u>Cell</u> 82:371-381 (1995)
	13. Cheng et al., "Identification and Cloning of ELF-1, a Developmentally Expressed Ligand for the MEK4 and Sek Receptor Tyrosine Kinases" <u>Cell</u> 79:157-168 (1994)
	14. Davis et al., "Ligands for EPH-Related Receptor Tyrosine Kinase That Require Membrane Attachment or Clustering for Activity" <u>Science</u> 266:816-819 (November 4, 1994)
	15. Drescher et al. "In Vitro Guidance of Retinal Ganglion Cell Axons by RAGS, a 25 kDa Tectal Protein Related to Ligands for Eph Receptor Tyrosine Kinases" <u>Cell</u> 82:359-370 (1995)
	16. Fox et al., "cDNA cloning and tissue distribution of five human EPH-like receptor protein-tyrosine kinases" <u>Oncogene</u> 10(5):897-905 (1995)
	17. Frommel and Holzhueter, "An Estimate on the Effect of Point Mutation and Natural Selection on the Rate of Amino Acid Replacement in Proteins" <u>J. Mol. Evol</u> 21:233-257 (1985)
	18. Gale et al., "Elk-L3, a Novel Transmembrane Ligand for the Eph Family of Receptor Tyrosine Kinases, Expressed in Embryonic Floor Plate, Roof Plate and Mindbrain Segments" <u>Oncogene</u> 13:1343-1352 (1996)
	19. Gilardi-Hebebstreit et al., "An Eph-related receptor protein tyrosine kinase gene segmentally expressed in the developing mouse hindbrain" <u>Oncogene</u> 7:2499-2506 (1992)
	20. Hefti, F., "Nerve Growth Factor Promotes Survival of Special Cholinergic Neurons After Fimbrial Transactions" <u>J. of Neuroscience</u> 6(8):2155-2162 (August 1996)
	21. Henderson et al., "GDNF: A Potent Survival Factor for Motoneurons Present in Peripheral Nerve and Muscle" <u>Science</u> 266:1062-1064 (1994)
	22. Heumann, R., "Regulation of the Synthesis of Nerve Growth Factor" <u>J. Exp. Biol.</u> 132:133-150 (1987)
	23. Hillier et al. "EMBL Database Entry HS006163" <u>The WashU-Merck EST Project</u> (Accession No. H10006) (July 2, 1995)
	24. Hillier et al., "EMBL Database Entry Hsus7001" LERK-8, A ligand for the EPH-Related Receptor Tyrosine Kinases (Accession No. U57001) (July 31, 1996)
	25. Hirai et al., "A Novel Putative Tyrosine Kinase Receptor Encoded by the eph Gene" <u>Science</u> 238:1717-1720 (1987)
	26. Kiyokawa et al., "Overexpression of ERK, an EPH Family Receptor Protein Tyrosine Kinase, in Various Human Tumors" <u>Cancer Res.</u> 54 (14):3645-50 (1994)
	27. Lai et al., "An Extended Family of Protein-Tyrosine Kinase Genes Differentially Expressed in the Vertebrate Nervous System" <u>Neuron</u> 6: 691-704 (1991)
CD	28. Lazar et al., "Transforming Growth Factor α " Mutation of Aspartic Acid 47 and Leucine 48 Results in Different Biological Activities" <u>Molecular and Cellular Biology</u> 8(3):1247-1252 (1988)
CD	29. Leibrock et al., "Molecular cloning and expression of brain-derived neurotrophic factor" <u>Nature</u> 341:149-152 (1989)

EXAMINER	<i>S. Miles</i>	DATE CONSIDERED	4/12/04
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BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

APPLICANT
Caras et al.FILING DATE
December 6, 2001GROUP
Unknown 1647

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
CGW	30. Lhotak et al., "Characterization of Elk, a Brain-Specific Receptor Tyrosine Kinase" <u>Mol Cell. Biol.</u> 11:2496-2502 (1991)
	31. Maisonnier et al., "Ehk-1 and Ehk-2: two novel members of the Eph receptor-like tyrosine kinase family with distinctive structures and neuronal expression" <u>Oncogene</u> 8:3277-3268 (1993)
	32. Maisonnier et al., "Neurotrophin-3: A Neurotrophic Factor Related to NGF and BDNF" <u>Science</u> 247:1446 (1990)
	33. Ngo et al. " Computational Complexity, Protein Structure Prediction, and the Levinthal Paradox" <u>The Protein Folding Problem and Tertiary Structure Prediction</u> Merz (ed) pp 433,442-225 (1994)
	34. Pandey et al. , "Role of B61, the ligand for the Elk Receptor Tyrosine Kinase, in TNF- α -Induced Angiogenesis" <u>Science</u> 268:567-569 (1995)
	35. Pasquale et al., "Identification of a developmentally regulated protein-tyrosine kinase by using anti-phosphotyrosine antibodies to screen a cDNA expression library" <u>Proc. Natl. Acad. Sci. USA</u> 86:5449-5453 (1989)
	36. Rameh and Armelin, "Tantigenic role in polyomavirus transformation:c-myc but not c-fos or c-jun expression is a target for middle T." <u>Oncogene</u> 6:1049-1056(1991)
	37. Rudinger, J. "Characteristics of the amino acid as components of a peptide hormone sequence" , <u>Peptide Hormones</u> J.A. Parsons, University Park Press, Baltimore pp.1-17 (June 1976)
	38. Sajjadi et al., "Identification of a New eph-Related Receptor Tyrosine Kinase Gene From Mouse and Chicken That Is Developmentally Regulated and Encodes at Least Two Forms of the Receptor" <u>New Biol.</u> 3(8):760-78 (1991)
	39. Sajjadi et al., "Five novel avian Eph-related tyrosine kinases are differentially expressed" <u>Oncogene</u> 8:1870-13 (1993)
	40. Tang et al., "c DNA Cloning, Chromosomal Localization, and Expression Pattern of EPLG8, a New Member of the EPLG Gene Family Encoding Ligands of EPH-Related Protein-Tyrosine Kinase Receptors" <u>Genomics</u> 41:17-24 (1997)
	41. Thoenen et al. , "Physiology of Nerve Growth Factor" <u>Annu Rev. Physiol.</u> 60:284-335 (1980)
	42. Tuzi et al., "eph, the largest known family of putative growth factor receptors" <u>Br. J. Cancer</u> 69:417-421 (1994)
	43. Wicks et al., "Molecular cloning of HEK, the gene encoding a receptor tyrosine kinase expressed by human lymphoid tumor cell lines" <u>Proc. Natl. Acad. Sci. USA</u> 89(5):1611-1615 (1992)
CDW	44. Winslow et al., "Cloning of AL-1, a Ligand for an Eph-Related Tyrosine Kinase Receptor Involved in Axon Bundle Formation" <u>Neuron</u> 14:973-981 (May 1995)
CDW	45. Zhou et al., "Isolation and Characterization of Bsk, a Growth Factor Receptor-Like Tyrosine Kinase Associated With the Limbic System" <u>J. Neurosci. Res.</u> 37:129-143 (1994)

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